

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
POWER COMPANY FOR (1) A GENERAL)	
ADJUSTMENT OF ITS RATES FOR ELECTRIC)	
SERVICE; (2) APPROVAL OF TARIFFS AND)	
RIDERS; (3) APPROVAL OF ACCOUNTING)	CASE NO.
PRACTICES TO ESTABLISH REGULATORY)	2020-00174
ASSETS AND LIABILITIES; (4) APPROVAL OF)	
A CERTIFICATE OF PUBLIC CONVENIENCE)	
AND NECESSITY; AND (5) ALL OTHER)	
REQUIRED APPROVALS AND RELIEF)	

**SECOND SET OF DATA REQUESTS OF JOINT INTERVENORS MOUNTAIN
ASSOCIATION, KENTUCKIANS FOR THE COMMONWEALTH, AND KENTUCKY SOLAR
ENERGY SOCIETY TO KENTUCKY POWER COMPANY**

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Dated: September 16, 2020

DEFINITIONS

1. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of any memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, or notices, in whatever form, stored or contained in or on whatever medium, including digital media.
2. "Study" means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion.
3. "Person" means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
4. A request to identify a natural person means to state his or her full name and business address, and last known position and business affiliation at the time in question.
5. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), identifying number, and its present location and custodian. If any such document was but is no longer in the Company's possession or subject to its control, state what disposition was made of it and why it was so disposed.
6. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
7. "And" and "or" should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
8. "Each" and "any" should be considered to be both singular and plural, unless specifically stated otherwise.

9. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.

10. "You" or "your" means the person whose filed testimony is the subject of these data requests and, to the extent relevant and necessary to provide full and complete answers to any request, "you" or "your" may be deemed to include any other person with information relevant to any interrogatory who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness' testimony.

11. "Company" or "KPC" means Kentucky Power Company and/or any of their officers, directors, employees or agents who may have knowledge of the particular matter addressed, and affiliated companies including American Electric Power.

12. "Joint Intervenors" means the Mountain Association, Kentuckians For The Commonwealth, and Kentucky Solar Energy Society, who were granted the status of full joint intervention in this matter.

INSTRUCTIONS

1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify and produce for discovery and inspection each such document.

2. These requests for information are continuing in nature, and information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Joint Intervenors. Any studies, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.

3. Unless otherwise expressly provided, each data request should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.
4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.
5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.
6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.
7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.

**SECOND SET OF DATA REQUESTS PROPOUNDED TO KENTUCKY POWER COMPANY
BY JOINT INTERVENORS**

QUESTION JI-2-1 In the Company's response to Staff 4-82 a correction was made listing that, "As of the end of the test year, the Company has 46 net metering customers, all of whom are using solar generation systems. Thirty six of these are residential installations with an average installed capacity of 8.84 kW per system." This leaves 10 commercial net metering customers for which no corresponding information was provided.

- a. Please list the commercial N.M.S. average installed capacity and total capacity.
- b. What is the percentage of total N.M.S. capacity that is residential and percentage of total that is commercial?

QUESTION JI-2-2 For each row in the response provided in KPCO_R_KPSC_4_82_Attachment1 please provide the ratio of the annual sum of Rcvd (kWh) to Delv (kWh). Also provide the ratio of the sum of all Residential Rcvd (kWh) to Delv (kWh) and a ratio of the sum of all Commercial Rcvd (kWh) to Delv (kWh).

QUESTION JI-2-3 In KPCO_R_KPSC_4_82_Attachment1, the Company lists 318.20 kW (AC) Residential, 213.40 kW (AC) General Service, and 30.00 kW (AC) Large General Service. As of September 16, 2020, what is the current overall N.M.S. capacity for Residential, General Service and Large General Service?

QUESTION JI-2-4 The Company response to JI_1_001 d) states that “The existing meter is replaced with a dual register meter for all customers when they begin taking N.M.S.” Company response to JI_1_023 states, regarding TOU meter, “The cost to program a commercial meter is approximately \$118.50 (no meter change out required).”

Please clarify, for commercial customers taking N.M.S. whether a meter change is required or whether the existing meter can be programmed?

QUESTION JI-2-5 Does the creation of daily netting time blocks with N.M.S. II for solar customer-generators incentivize daytime kWh consumption (that aligns mostly with T.O.D. on-peak)?

Is there any circumstance where it is more cost-effective to KPC to incentivize T.O.D. on-peak consumption over off-peak? Do N.M.S. II and T.O.D. rates incentivize competing objectives, and if not, why not?

QUESTION JI-2-6 If a customer investing in solar submits a net metering application for N.M.S. service before the N.M.S. II service tariff is approved, but due to weather or other contingencies (including KPC’s own delay in changing meter) the system is not “operational” before N.M.S. II service is applied, would they be served under N.M.S. or N.M.S. II?

QUESTION JI-2-7 The Company response to JI_1_012 states that, “Reduced load at the distribution level can produce certain avoided generation and transmission costs....”

a. Do investments in efficiency by the customer similarly reduce load at the distribution level?

b. Do investments in efficiency by the customer produce “certain avoided generation and transmission costs” and if so, please explain whether those avoided generation and transmission costs are the same, different, greater, or smaller than reduced load due to N.M.S. generation?

c. If the answer to **b.** is that energy efficiency measures installed by the customer provide similar avoided generation and transmission costs, please explain and justify why investments in N.M.S. generation are being singled out for supposed cost recovery while investments by customers in efficiency are not?

d. What is the aggregate annual dollar value of cost recovery alleged by KPC to be lost due to customers taking N.M.S.? Please provide the basis for that determination.

e. What is the aggregate annual dollar value of cost recovery alleged by KPC to be lost due to customer investments in efficiency? Please provide the basis for that determination.

QUESTION JI-2-8 The Company response to JI_1_013 question, “Do you agree that distribution losses from substation delivery points to points of use are greater than distribution losses from a distributed generation resource delivery point (e.g. meter of a customer-generator taking N.M.S.)?” was “Yes, when the instantaneous load is being served by the distributed generation resource at the meter point.”

What about if the instantaneous load is not at the customer-generator meter point, i.e. instantaneous export generation is occurring?

QUESTION JI-2-9 The Company response to JI_1_035 lists, “The entire population of outdoor lighting plant has an average age of 9.19 years.” Explain why the new LED Lighting Services include added language for customers who would like to convert their existing lamps to LEDs and the charges associated with the upgrade: “Existing outdoor lighting customers who wish to convert from non-LED lamps to a new LED fixture shall pay a monthly charge of \$3.33 per lamp replaced, per month for 84 months.”

a. What is the basis for distinguishing and imposing a charge for LED conversions when such a charge is not included for any other requested change in Lighting Service?

b. Will the imposition of such a charge encourage or discourage conversion to more efficient LED lighting?

QUESTION JI 2-10 The Company response to JI_1_039 lists actions taken by KPC to help customers mitigate the new demand charge imposed on them resulting from the 2017 rate case. Included in that response was the identification of G.S. customers with an average monthly demand of 25 kW or greater.

a. Of the G.S. customers identified with an average monthly demand of 25 kW or greater, how many are now on other tariff options, such as time-of-day tariff as a result of meeting to discuss the impacts of the rate case on those customer's bills?

b. Of the G.S. customers identified with an average monthly demand of 25 kW or greater, what was the average kWh and kW billed during the test year?

c. What was the average kWh billed during the test year applied in Case No. 2017- 00179?

d. For all rows in KPCO_R_JI_1_39_Attachment1 please list average demand billed during the test year, providing that information in Excel format, and identifying accounts that are now closed.

QUESTION JI-2-11 Refer to KPC Company response to JI_1_039. Of the approximately 84,400 residential customers of KPC utilizing electric heating, how many heat their homes primarily with electric furnaces or baseboard heating, i.e. non-heat pump?

QUESTION JI-2-12 Referring to JI_1_024, if the Commission denies the request to approve AMI metering, considering the Company's testimony that the meters they use for TOU are no longer manufactured, what type of meter would the Company use for N.M.S. II customers? What would be the cost (material, installation, programming) for these alternate meters?

QUESTION JI-2-13 Referring to JI_1_020, is the Company asserting that they have invested no paid staff or contract labor in the development of the N.M.S.II tariff?

a. Can the KPC's current billing and accounting system accommodate metering and accounting for on-peak and off-peak customer generation and consumption as proposed for N.M.S.II?

b. Is it correct that no new accounting or administrative systems would be required to manage data produced by the new meters required for N.M.S.II?

c. The Company has stated that TOU meters cost \$385 to purchase and install. AMI meters cost \$95 (no price for installation and programming was provided). Both meter types are more costly than the standard meter traditionally used for net metering (\$36.72).

d. Considering the KPC testimony about the incremental costs of the new meters that would be required for N.M.S.II, does the Company want to revise their response to JI_1_020?

QUESTION JI-2-14 Referring to KPCO_R_KPSC_3_1_Attachment17, what modeling program or tool was used to estimate hourly solar energy production?

Did KPC model the solar performance and evaluate its impact on customer load and peak demand in every hour of the year? Please provide the results of such modeling.

QUESTION JI-2-15 Referring to JI_1_003, how does KPC reconcile the requirement that "all new net metering installations will require a time of use meter" with KRS 278.466(2), which states that "Each retail electric supplier serving a customer with eligible electric generating facilities shall use a standard kilowatt-hour meter capable of registering the flow of electricity in two (2) directions"?

Explain how KPC justifies proposing a tariff that requires a non-standard kilowatt-hour meter when the law does not authorize or permit the utility to require use of non-standard kilowatt-hour meters as a condition of service for net metering customers?

QUESTION JI-2-16 Please provide all sources and references consulted or relied on by the Company in developing its methodology for accounting the costs and benefits of net metering.

Please provide all sources and references consulted or relied on by the Company in developing its new N.M.S.II tariff.

QUESTION JI-2-17 Mountain Association, in helping tax-exempt enterprises save energy costs through billing reviews, has found that some tax-exempt enterprises are being billed by KPC for sales tax. Historically, tax-exempt enterprises sharing their tax exemption certificate with KPC Customer Service, were credited with paid in sales taxes going back as much as five years. However, in the last few years there has been no credit made for prior sales taxes paid in by a tax-exempt entity, just the removal of sales tax going forward.

What is KPC's current policy on this and why? On what basis is KPC refusing to credit back sales taxes charged to tax-exempt enterprises?

QUESTION JI-2-18 As of the last six billing cycles:

a. What is the number of current accounts with greater than 30 days past due dollar amounts? Please list those accounts by rate class.

b. What is the total dollar amount that is more than 30 days past due? Please list those amounts by rate class.

c. What is the number of current accounts that were past due as of May 28, 2020? Please list those accounts by rate class.

QUESTION JI-2-19 How does the company determine the costs to include in the residential basic service charge?

a. Identify the functionalized costs included in the residential basic service charge (i.e. billing, postage, etc.)

b. Provide the USOA account numbers where the company records these costs.

QUESTION JI-2-20 Provide the Company's current Integrated Resource Plan (both public and confidential versions).

QUESTION JI-2-21 Provide all analyses performed by the company (or its contractors) to evaluate the cost impact of installing AMI meters for residential customers. Include all analysis performed by the company showing the residential bill and rate impact when the cost of the meters is included in rates.

QUESTION JI-2-22 Provide all analyses relied on by the company when evaluating whether and to what extent net-metered customers contribute to fixed-cost recovery.

QUESTION JI-2-23 Referring to KPCO_R_KPSC_4_82_Attachment1.xlsx, please add the following information to that table for each customer: annual S-REC production, operational date, and solar rebate amount (if any).

QUESTION JI-2-24 Provide a complete list of all Qualifying Facilities (cogeneration and small power production facilities) that have a contract with the Company for parallel generation service. Include generation technology, system capacity, and operational date for each.

QUESTION JI-2-25 Provide the estimated costs (including any software upgrades and staff time) the company will incur in order to perform the analysis required to calculate and bill net-metering customers under the proposed NM.S. II tariff.

QUESTION JI-2-26 Provide the number of company's residential and commercial net-metering customers who are currently served under tariffs with demand rates. For each customer served under such tariff provide all analyses performed by the company to determine the amount of that customer's contribution to fixed costs of service.

QUESTION JI-2-27 For each of the last five years provide the financial cost of net metering to the utility. Provide all analysis performed to show the rate impact, if any, of providing service under the current N.S. tariff, on non-net-metering customers.

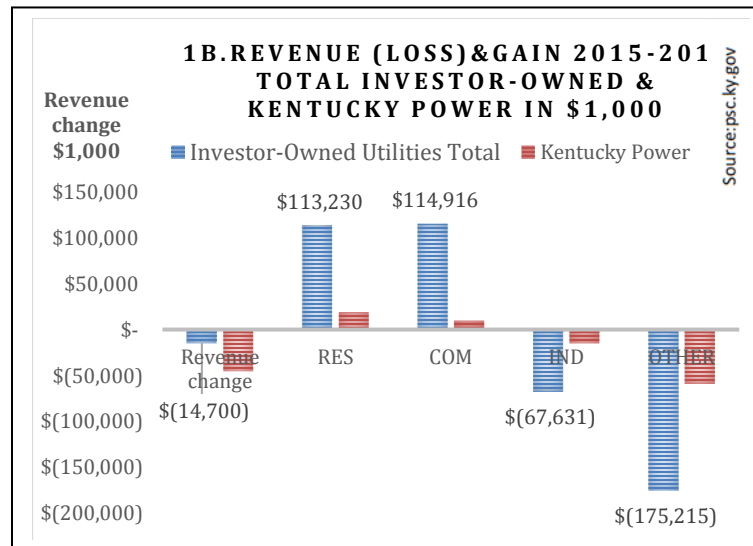
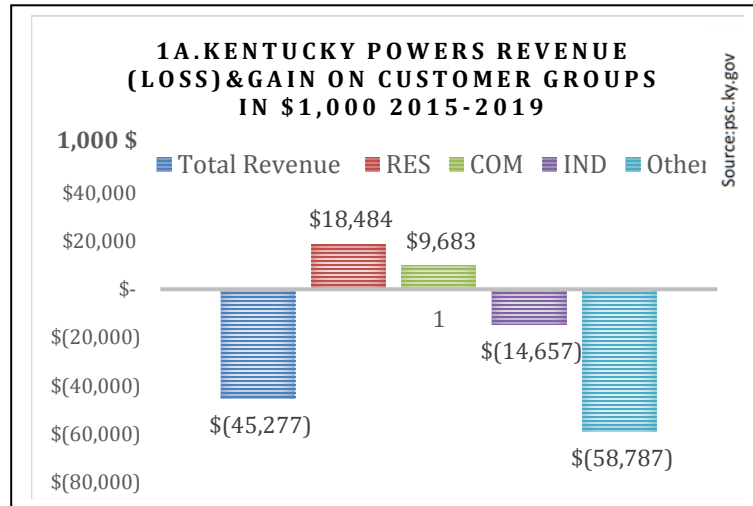
QUESTION JI-2-28 Please describe, and provide complete and detailed documentation on, all current programs that the company currently operates relating to solar energy, wind energy, and other forms of renewable energy, including, but not limited to, the name of the program, annual budget, the customer classes to which the program applies, the number of participating customers, and the applicable tariff sheets. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

QUESTION JI-2-29 Please describe, and provide complete and detailed documentation on, all current programs that the company currently operates relating to energy efficiency, including, but not limited to, the name of the program, annual budget, the customer classes to which the program applies, the number of participating customers, and the applicable tariff sheets. Please include information for any programs that have been provided in the past 5 years. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

QUESTION JI-2-30 Please describe, and provide complete and detailed documentation on, all current low-income or income-eligible programs that the company currently operates relating to energy efficiency and renewable energy, including, but not limited to, the name of the program, annual budget, the customer segment to which the program applies, the number of participating customers, and the applicable tariff sheets. Please include information for any programs that have been provided in the past 5 years. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

QUESTION JI-2-31 For each program described in response to Questions JI-2-28, JI-2-29, and JI-2-30, are the costs of KPC offering such programs paid only by the customers within each class that participate in the particular program, or are the costs of offering programs such as energy efficiency, demand side management, and low income energy assistance programs shared by all customers in the rate class?

QUESTION JI-2-32 From 2015-2019 KPC received \$18,484,000 in revenue on residential and \$9,683,000 on commercial customer sales, collectively \$28,167,000 in these five years. On the contrary, KPC saw \$58,787,000 in lost revenues to other and \$14,657,000 to industrial customers, collectively a revenue loss of \$ 73,444,000 in these five years. Compared to all investor-owned utilities, KPC's total revenue loss of \$(45,277,000) appears to have been larger than the groups' total revenue loss of \$(14,700,000).



a. Please confirm whether KPC has had the most significant revenue loss among all investor-owned utilities for the period identified above. Please explain why it is fair, just, and reasonable to ask residential and commercial customers that provide KPC with increasing revenue to endure continuing rate increases to offset lost revenue from two different customer groups?

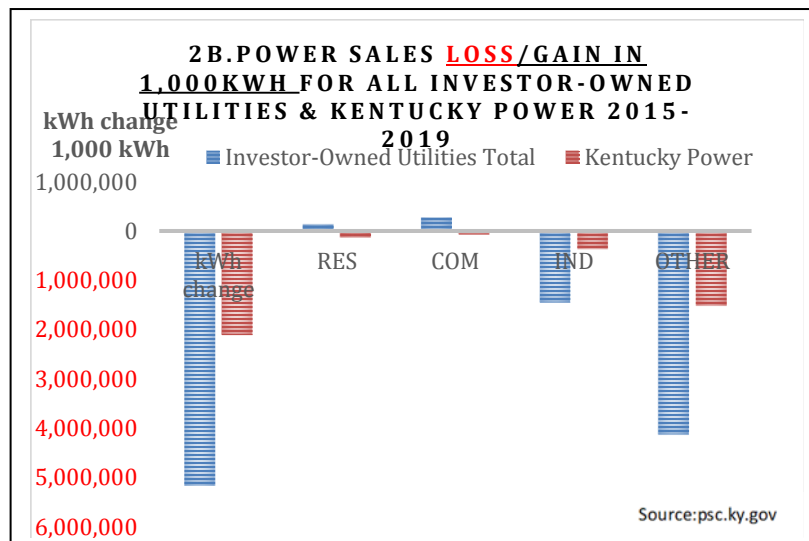
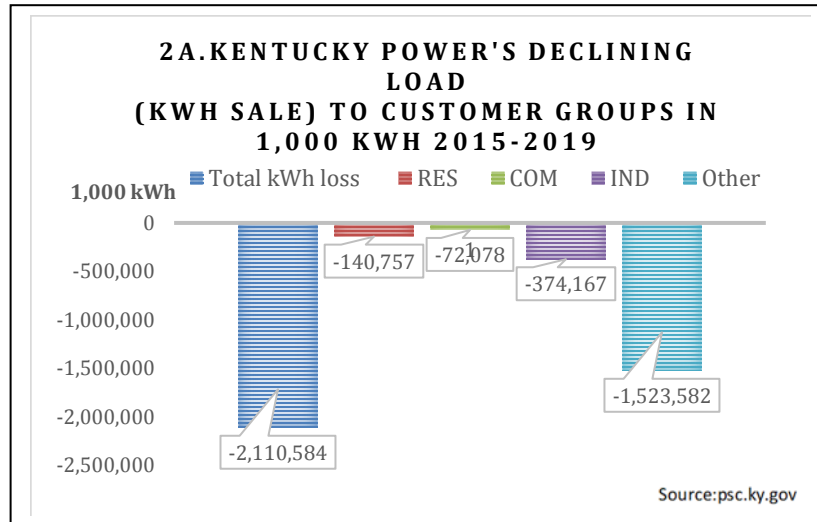
b. Please document how increased rates and tariffs align with KPC's expressed goals of providing affordable services at reasonable rates and can attract and retain businesses.

c. Please explain how KPC can maintain its financial integrity in the short, mid, and long-term by offsetting big revenue/load losses from "other" and industrial customers that appear most likely to continue to decline, by imposing proposed rate and tariff increases on residential and commercial customers?

QUESTION JI-2-33 KPC proposes rate increases for residential and commercial customers in order to recover annual revenue and an increase in ROE from 6.7% to 10%.

a. Please confirm whether the lost revenue is a result of declining sales to other and industrial customers, a total load decline of 1,897,49,000 kWh from 2015-2019, representing a revenue loss of \$73,494,000 in the same five years period.

b. Unlike other investor-utilities, KPC saw a higher load decline to other and also residential and commercial customers (212,835,000 kWh). KPC enjoyed an increased revenue of \$28,167,000 from residential and commercial customers from 2015-2019. KPC proposes to spend part of the revenue from increased rates and tariffs to recover the cost of planned distribution modernization investment (AMI).

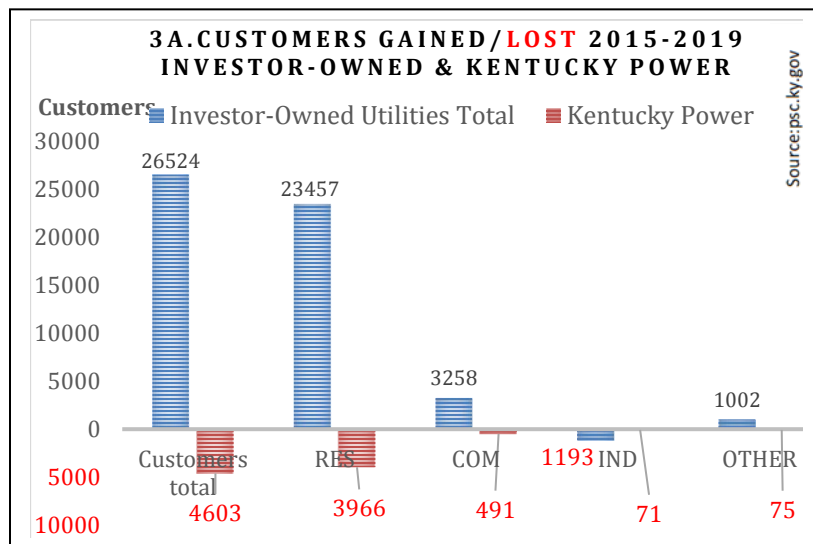


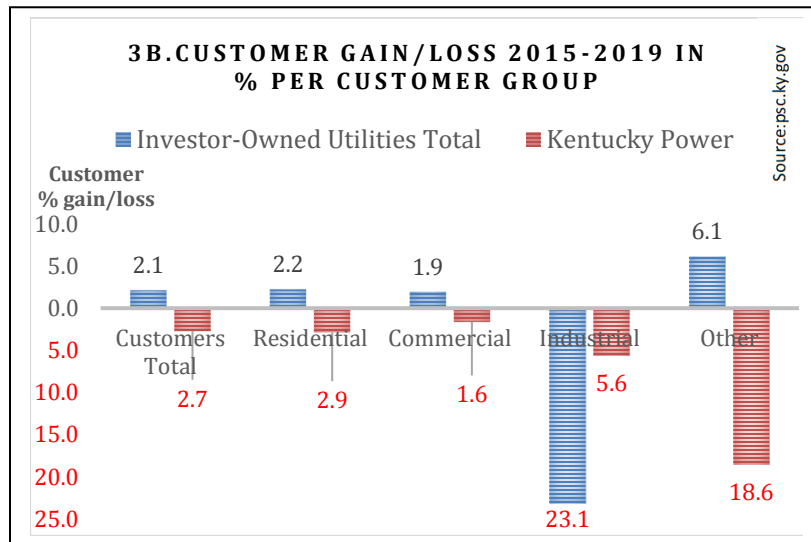
a. Please explain how the imposed higher revenue from increased rates for residential and commercial customers will improve profitability and bring a return on equity (ROE) from 6.7% to 10%.

b. Please explain whether the low ROE is in part related to improvements in customer investment in efficiency. Explain how and whether increased

revenue spent on automated metered infrastructure (AMI) will improve efficiency and improve the ROE?

QUESTION JI-2-34 KPC states that it faces emerging reliability challenges in the form of service interruptions due to vegetation outside the right-of-way that has significantly increased over the last several years due to continuous heavy rainfalls, plant disease, and insect infestation. KPC projects the accumulated vegetation management cycle cost for 2019-2023 to \$107,543,809 (Section III, Phillips-29, Table 7). At the same time, KPC has seen a decline in its customer base, where other investor-owned utilities have enjoyed growth. Explain whether KPC's proposal is to spread the increasing costs of operation over a declining number of customers with declining usage.

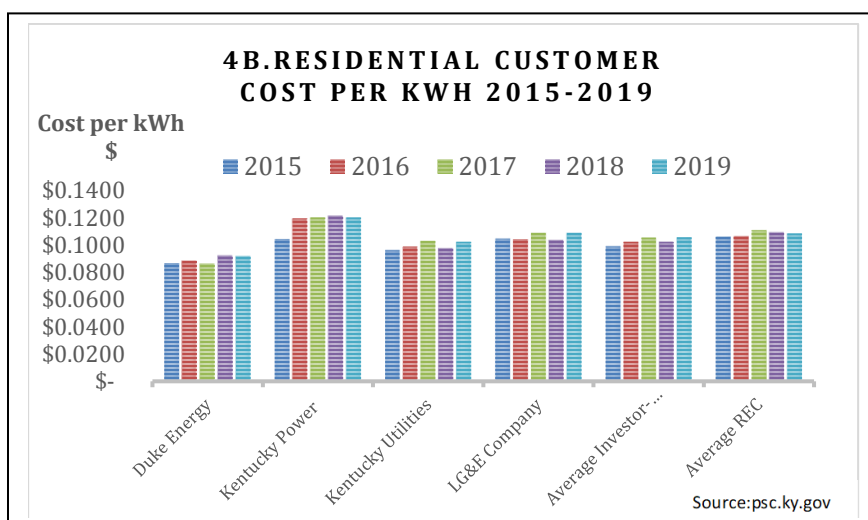
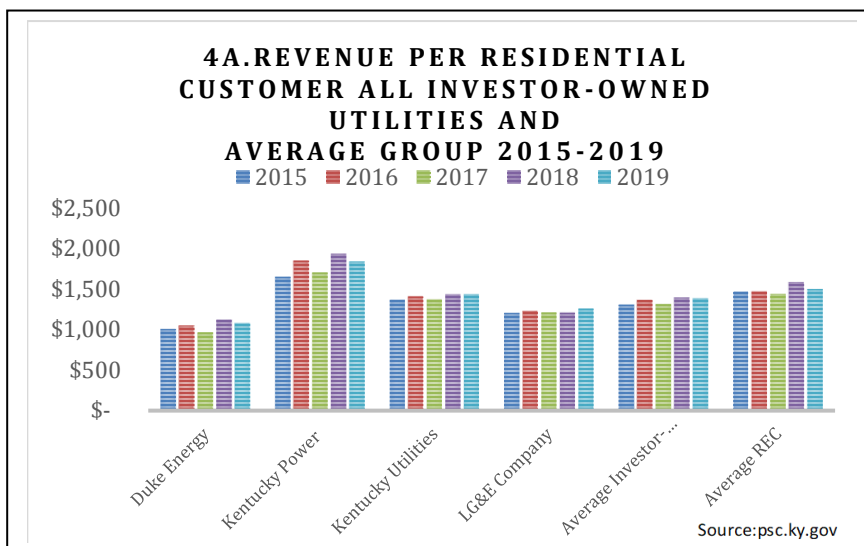




a. Integrated resource planning (IRP) is the process of identifying longer-term investments to meet reliability and public policy objectives at a reasonable cost and to attract investors. Please explain why investment in AMI or grid modernization rather than in addressing emerging issues like long miles of vulnerable powerlines, serving a declining customer base and a declining load is a better investment for ratepayers and customers.

b. Please respond to the proposition that distributed generation with storage, offering a blend of community solar, rooftop solar, solar facilities creating a micro-grid infrastructure could be more cost-effective than the current generation portfolio. Please explain whether KPC uses IRP to identify the least-cost or best-value solutions to provide electricity services long-term to its customers and to be able to attract the necessary investors. Provide a copy of the most recent IRP.

QUESTION JI-2-35 Please confirm whether KPC has, over the past five years, enjoyed the highest revenue per residential customer among the investor-owned utilities and the average of rural electric cooperative utilities. Please confirm whether KPC also has the highest cost per kWh for residential and commercial customers. KPC states that without a continuing rate and tariff increase, the Company cannot operate successfully. Please explain why increasing rates and costs of service over the past five years have not lead to successful operation without the need for additional rate and cost increases.



a. Please explain the basis upon which KPC justifies deployment of AMI and alternatives considered by the utility to such deployment?

b. Demographic changes, declining median income, declining jobs are problems facing KP's customer base. What number and percentage of KPC's residential customers receive "low-income home energy assistance program" assistance? How many additional residential customers will need such assistance if the proposed rate and cost increases are approved? How much more assistance will be needed for existing recipients, on an annual basis, to offset those proposed increases?

QUESTION JI-2-32 Provide a reference to any application for a CPCN, or for cost recovery through surcharge or other mechanism, in which KPC has relied in any part on climate change as justification for Commission approval of utility-constructed or utility-purchased solar capacity.

QUESTION JI-2-33 Company response to JI_1_046 states "there were 265,972 bills with a total of 243,427,590 kWh over 1,100 kWh/month during the months of December, January and February. The remaining bills during those months did not use in excess of 1,100 kWh." Please state the number of "remaining bills" that did not use in excess of 1,100 kWh? What is the high, low, median, and average usage was on those bills?

Respectfully submitted,



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CERTIFICATE OF SERVICE

This is to certify that the electronic version of the foregoing is a true and accurate copy of the same document that will be filed in paper medium; that the electronic filing has been transmitted to the Commission on September 16, 2020; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that in accordance

with the March 16, 2020 Commission Order in Case No. 2020-00085 an original and ten copies in paper medium of this *Statement Regarding Receipt of Electronic Transmissions* will not be mailed until after the lifting of the current state of emergency.

A handwritten signature in black ink, appearing to read 'Tom FitzGerald', with a stylized flourish at the end.

Tom FitzGerald